RESULTS: A total of 1185 established T2DM patients were assessed. The mean (SD) age was 55 (10) years and mean duration of diabetes (SD) of 10 (7) years. Metformin was the most commonly prescribed drug [827 (70%)], in general followed by insulin [627 (53%)], sulfonylureas [520 (44%)], and pioglitazone [329 (28%)]. A total of 348 (29%) patients received monotherapy and 837 (71%) received combination therapy. The most frequently prescribed monotherapy was insulin [214 (62%)], followed by metformin in 81 (23%), sulfonylurea in 49 (14%) and pioglitazone in 4 (1%) patients. Family history(OR 1.76, 95%CI 1.18, 2.64), diabetes duration (OR 2.62, 95% CI 2.05, 3.36), Hb_{A1c} (OR 1.25, 95%CI 1.01, 1.50), neuropathy(OR 1.57, 95% CI, 1.14, 2.2), nephropathy(OR 1.77, 95% CI 1.40, 2.24), retinopathy (OR 1.97, 95% CI 1.63, 2.40), Coronary Artery Disease (CAD) (OR 1.57, 95% CI, 1.14, 2.2) and diabetic foot t (OR 1.62, 95% CI 1.12, 2.40) were all significantly associated with the insulin therapy. Obese and overweight patients were prescribed oral antidiabetic drugs. [metformin (OR 1.25, 95% CI 1.15, 1.35), sulfonylurea (OR 1.28, 95% CI 1.01, 1.61)]. **CONCLUSIONS:** This study finding indicates that medication use was consistent with evidence based practice guidelines in T2DM. There was, however, scope for improvement in prescribing, especially in the T2DM patients with complications.

PDB54

USE OF ELECTRONIC MEDICAL RECORDS FOR CLINICAL RESEARCH IN THE MANAGEMENT OF TYPE-2 DIABETES

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OBJECTIVES: There is a growing interest in the use of electronic medical records (EMRs) for clinical research. The study describes a collaborative research project that uses an EMR database to explore the level of diabetic care in patients with type 2 diabetes in a primary care setting. **METHODS:** A retrospective study was conducted using the GE Centricity electronic medical records (EMR) database of a primary care physicians group. Patients with type 2 diabetes were identified using ICD-9 codes of 250.xx (January 1, 2004 to March 31, 2009). Patients > 18 years of age, with two or more visits with their respective physicians, and having an active status in the database were selected. Demographic characteristics, clinical parameters (HbA1c, LDL, HDL) medication use, and number of office visits were identified. Data was extracted using Microsoft SQL and descriptive statistical analyses were conducted using SPSS version 18.0. **RESULTS:** The study identified 4,598 patients (mean age: 67+ 12.9 years and males: 51.8%) with type 2 diabetes. A total of 24,590 office visits were recorded with a mean of 14.1 visits and 127 days between visits. 3,100 (61.3%) patients had HbA1c levels < 7; 1,473 (29.1%) patients had levels between 7-9; and 484 (9.6%) patients had levels > 9. 3,970 (59.2%) patients had LDL below 100 mg/dL and 2,737 (40.8%) had LDL greater than 100 mg/dL. Mean number of active medications were 2.34 and diabetes medications were 1.94. Combination drugs were used the most compared with amino acid derivatives and amylin analogs. **CONCLUSIONS:** The collaborative research project has been established between clinicians and researchers, a baseline data extraction has been developed and now further study will be necessary to prove that specific interventions in high risk patients, i.e. HbA1c > 9, can ultimately improve care.

PDB55

CLINICAL AND ECONOMIC EVALUATION OF A DIABETES MEDICATION MANAGEMENT PROGRAM: 2 YEAR PROGRAM UPDATE

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OBJECTIVES: A central Texas health plan implemented a pharmacist-led diabetes medication management program (MMP) offering co-pay waivers for diabetes related medications and supplies. Medication adherence, diabetic control and healthcare costs were compared between patients enrolled in the MMP and matched control patients. **METHODS:** Patients were enrolled in the MMP if they had baseline A1C levels > 7.5% and three years of continuous enrollment throughout the study period ("rolling" enrollment from 7/06-12/08). The enrollees and controls were matched 1:1 by age, gender, baseline A1C, and Charlson comorbidity index (CCI). A1C and adherence (Medication Possession Ratio (MPR)) were measured one year before and two years after implementation. A difference in difference analysis used paired *t*-tests to compare changes in MPR and A1C. Healthcare costs were analyzed by year, group, types of service, diabetes-related and all-cause claims. **RESULTS:** 144 patients were enrolled in the MMP for at least two years. Average A1C decreased by 0.8 in controls and 1.5 in MMP patients; the difference between groups was statistically significant ($P<0.01$). While both groups declined in MPR for oral antidiabetic drugs (MMP:10% vs. Control:19%), the difference between the groups was statistically significant ($P=0.009$). After two years, the average per member per month (PMPM) costs increased by 16% and 36% in MMP and control groups, respectively. The increase was mainly attributable to growth in diabetes-related drug and outpatient claims in the MMP group. Inpatient costs appeared to be the greatest difference between the two groups, decreasing by 38% in the MMP group and increasing by 159% in the control group. **CONCLUSIONS:** When compared to matched control patients, the MMP showed improved patient clinical and adherence measures. Although two-year PMPM costs increased, the significant difference in inpatient costs indicates a potential for longterm savings.

PDB56

IMPACT OF PHARMACIST MANAGEMENT ON PATIENTS WITH DIABETES ENROLLED IN A RURAL FREE CLINIC

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OBJECTIVES: Assess the clinical and economic impact of pharmacist education, monitoring, and management of patients with diabetes mellitus (DM) enrolled in a free clinic that serves a rural indigent population. **METHODS:** Data from 77 patients continuously enrolled in a newly established pharmacist service were analyzed. Patients were ≥18 years of age, qualified for free care on the basis of income and/or insurance status, and had a diagnosis of DM upon entry. Under a collaborative agreement, pharmacists educated patients on DM, counseled patients on lifestyle modifications, assessed appropriateness of drug therapy, and managed drug therapy for DM and associated comorbid conditions. Clinical impact was measured by changes from baseline in hemoglobin A1c (A1c) levels, blood pressure, and lipid levels over a 12 month period. Using cost estimates published in the literature, economic impact was calculated based upon expected savings per 1% decrease in A1c levels. **RESULTS:** Mean A1c levels were 10.6% at baseline (SD ±2.5 %). At one year, A1c levels decreased an average of 2.3% ($P<0.001$), and 44.2% of patients had an A1c ≤7%. A significant number of patients achieved A1c goal by one year ($P<0.0001$). Significant decreases in mean values were also noted for systolic blood pressure (SBP) ($P=0.02$), LDL-cholesterol ($P<0.001$), and triglycerides ($P= 0.001$). A significant number of patients reached a SBP goal ≤130 mmHg ($P=0.033$), LDL-cholesterol ≤100 mg/dL ($P<0.0001$), or triglycerides ≤150 mg/dL ($P<0.0001$). Based on an expected savings of $1,118 per 1% decrease in HbA1C levels, the average savings per patient was $2,600, for a total savings potential of $167,364. **CONCLUSIONS:** Pharmacist management of patients with DM has the potential to significantly impact clinical outcomes and improve costs of care for patients in underserved rural areas.

PDB57

IMPACT OF A PHARMACIST-BASED DIABETES MANAGEMENT PROGRAM ON ADHERENCE TO MEDICATION FOR DIABETIC PATIENTS

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OBJECTIVES: Average adherence to therapy in patients with diabetes is only 67.5%. This study aims to evaluate the impact of a pharmacist-based diabetes management program on improving medication adherence among diabetic patients. **METHODS:** Data collected during a collaborative program in which trained pharmacists provided diabetes management including medication, education and diet and lifestyle modification counseling to diabetic patients was obtained. Medications dispensed before (in 2007) and during (in 2008) the intervention was recorded for the patients receiving the intervention and controls (matched on age ±5 years, HbA1C ±0.1%, gender, and baseline cholesterol levels) as part of this retrospective, longitudinal study. Patients with two or more visits at the participating pharmacies were included in the study. Medication Possession Ratios (MPRs) were calculated for every patient. Analysis involving descriptive statistics and t-tests were performed using SAS version 9.2. **RESULTS:** A total of 135 cases and 243 controls were included in the study of which 53.3% (n=72) and 50.78% (n=122) were females, respectively. The mean age (SD) of cases and controls was similar 48.6 (11.4) and 47.4 (13.1) years, respectively. The mean MPR(SD) of cases improved from 3.41(3.7) in 2007 to 5.12(10.7) in 2008 ($p=0.0902$). The MPR(SD) for controls, reduced from 2.96(2.9) in 2007 to 2.16(6.8) in 2008. When the changes in MPR(SD) of every individual were compared cases showed greater change of 1.75(1.4) on an average as compared to 0.015(1.8) for controls($p=0.0907$). Although not significant ($p=0.083$), the percentage of cases that were non-adherent reduced by around 50% from 8.9% in 2007 to 4.4% in 2008. **CONCLUSIONS:** Adherence to medication in diabetic patients may be improved thorough a planned pharmacists-based disease management program. Further, longitudinal data may be needed to conclusively indicate the impact of pharmacists based intervention.

PDB58

WHAT IS THE IMPACT OF GENERIC SUBSTITUTION OF ROSIGLITAZONE ON PATIENT OUTCOMES AND TREATMENT COSTS? AN HMO EXPERIENCE

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OBJECTIVES: We assessed the impact of the use of a generic substitute of rosiglitazone (an anti-diabetic drug) on patient outcomes and treatment costs. **METHODS:** From the Maccabi Healthcare Services computerized databases we identified three groups of diabetic patients: 1. Patients who purchased the branded medication Avandia® and switched entirely to its' generic substitute Rossini® (same number of packages and dosage; the intervention group; N=1,632), 2. Patients who switched to Rossini® partially (different number of packages and/or different dosage; the control group; N=440), and 3. Patients who did not switch to Rossini® at all (N=897). For each patient we retrospectively obtained and compared the following parameters 6-months prior to, and 6-months following the switch: HbA1c levels, number of medication packages purchased, number of physician visits, hospital and emergency room admissions, and pharmaceutical costs. **RESULTS:** In patients who switched entirely from Avandia® to Rossini® we found a 45% decrease in treatment costs ($p<0.001$), as compared with a 29% decrease in costs in the control group that continued treatment with Avandia® ($p<0.001$) and 37% decrease ($p<0.001$) in the control group that partially switched to Rossini® (in the control groups there was a decline in the number of packages that were purchased after the switch). In the intervention group, we observed a reduction of 0.1% in HbA1c levels [from 7.6±1.3% to 7.5±1.4% ($p<0.001$)] in comparison to a non-significant difference in the two other groups [from 7.9±1.5% to 7.9±1.6% ($p=0.198$) and from 7.8±1.4% to 7.7±1.7% ($p=0.261$), respectively]. We found a decrease in the number of physician visits, and no difference in the number of hospitalization days